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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/521,946	03/09/2000	TOKUNORI KATO	105489	2961

25944 7590 02/25/2005

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EXAMINER

POON, KING Y

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/521,946

Applicant(s)

KATO, TOKUNORI

Examiner

King Y. Poon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2004 and 15 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) 24-38, 42 and 43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 and 39-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2000 and 15 June 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's election with traverse of restriction requirement in the reply filed on 10/13/2004 is acknowledged. The traversal is on the ground(s) that the search and examination of the entire application can be made without serious burden, the examiner must examine it on the merit, event though it includes claims to independent or distinct inventions. This is not found persuasive because it was shown a serious burden on the examiner by classifying the different inventions in different subclass and showing separate status in the art. There may perhaps be some related subject matter; however, there is greater amount of searching required in areas which are not related. Since the inventions are distinct, the best prior art being searched, for example, for the limitations of the image reading apparatus of invention II may not be the best prior art, or may not be prior art at all for the limitations of the communication of image processing system of invention I and vice versa. Therefore, a search is completed for invention I will require a further search for invention II, and vice versa; and thereby the search and examination of the entire application cannot be made without serious burden to the examiner.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 24-38, 42, 43 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 10/13/2004.

3. This application contains claims 24-38, 42, 43 are drawn to an invention nonelected with traverse in Paper filed 10/13/2004. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Specification

4. The amended title of the invention has been accepted.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the copy start step and the copy start device must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

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of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 39-41 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 39: Newly added claimed limitations of "wherein the peripheral device further comprising a copy start device that starts copying, and when the copy start device starts copying, the reading by the reading device, the conversion by the converting device, the transmission by the first transmission device, the reception and the storing by the reception control device, the transmission by the second transmission device and the reception and the printing by the reception printing device are performed successively based on the start by the copy start device" are subject matter which was

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not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 40: Newly added claimed limitations of "wherein the peripheral device further comprising a copy start device that starts copying, and when the copy start device starts copying, the reading by the reading device, the conversion by the converting device, the transmission by the first transmission device, the reception and the storing by the reception control device, the transmission by the second transmission device and the reception and the printing by the reception printing device are performed successively based on the start by the copy start device" are subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 41: Newly added claimed limitations of "a copy start step of starting copying at the peripheral device, wherein when the copy start step starts copying, the reading step, the conversion step, the first transmission step, the reception control step, the storing step the second transmission step and the reception printing step are performed successively based on the start by the copy start step" are subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 2, 5, 8, 9, 12, 15, 16, 19, 20, 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura (5,781,310) in view of Dennis (5,469,533).

In accordance with claims 1, 8, 15: Nakamura discloses a copying system with a host device, a peripheral device and a printing device, in Nakamura's system, the controlling unit 3 (figure 2) and memory unit 6, (fig. 13) act as a host device (it is well known in the art that a host computer having a controlling unit and a memory), and is connected to the image inputting unit 1, which is a peripheral device, and an image outputting unit 2, which is a printing device (col. 4 lines 29-32).

Nakamura further discloses that the peripheral device contains a reading device that reads an image on an original document as image data; in Nakamura's system, image inputting unit 1 contains scanning means 61 for scanning an original sheet (col. 4 lines 34-35).

Nakamura further discloses that the peripheral device contains a converting device that converts that converts image data read by the reading device into printable

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data; in Nakamura's system, the scanned data is sent as an analog voltage signal from the color image sensor device 1 12 (figure 4A) to the A/D converter 116, which converts the signal into an 8-bit digital signal (col. 5 lines 38-44) data is then sent to the image outputting device 2 for output (col. 6 lines 14-15).

Nakamura further discloses that the peripheral device contains a first transmission device that transmits printer data to the host; in Nakamura's system, the controlling and communicating unit 10 (figure 1) sends image data to the transmission path 4, to which the image outputting unit 2 and the controlling unit 3 are also connected (figure 2 and col. 5 lines 1-4; also see column 14, lines 1-10); as well as to memory 6 controlled by controlling unit.

Nakamura further discloses that the peripheral device contain a reception printing device that receives printable data and causes the printing device to print the printable data; in Nakamura's system, the image outputting unit 2, receives image data via controlling and communicating unit 20 (figure 48 and col. 6 lines 1 1-14) the data is then used to by the image outputting unit 2 to form a full color image (col. 6 lines 29-30).

Although Nakamura teaches to transmit and retrieve image from the memory 6 through controlling unit 3, column 14, lines 1-30, and that it is well known in the art that a host have a control unit and a memory, Nakamura does not disclose expressly that the printable data is received from a host device; i.e., Nakamura does not disclose expressly that the storage device 6 is in the host device.

Dennis discloses that the peripheral device (printer 218 figure 1) contains a reception printing device to receive printable data from the host (computer 202) and to

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cause the printing device to print the data; in Dennis's system, data to be printed is generated by the application program 204, within the host, and transformed into printable bitmap data by the resource scheduler 216 and sent to the printer for printing (col. 8 lines 30-32 and col. 9 lines 8-26).

Dennis further discloses that the host device contains a device to store data, namely a hard drive (col. 10 lines 9-12).

Nakamura further discloses that the system contains a reception control device that receives the printable data transmitted first transmission device and stores the

Nakamura further discloses that the peripheral device contain a reception printing device that receives printable data and causes the printing device to print the printable data; in Nakamura's system, the image outputting unit 2, receives image data via controlling and communicating unit 20 (figure 48 and col. 6 lines 1 1-14) the data is then used to by the image outputting unit 2 to form a full color image (col. 6 lines 29-30).

Nakamura further discloses that the system contains a second transmission device that transmits to the peripheral device the printable data stored in the storage device, in Nakamura's system, when required for printing, image data stored in the memory unit 6, is transferred to the image outputting unit 2 to print the data (col. 14 lines 8-13).

However, Nakamura does not disclose expressly that the second transmission device is in the host device.

Dennis further discloses that the host device contains a transmission device to transmit data stored in the storage device to the peripheral device, in Dennis's system,

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the resource loader 214 controls the transmission of image data and resource information from the computer to the printer (col. 8 lines 63-67).

Nakamura and Dennis are combinable because they are from the same field of endeavor, namely image forming systems with host and peripheral devices.

Therefore, it would have been obvious to a person of ordinary skill in the art to allowed the memory 6 and the control unit 3 to be implemented in a host computer and to include the second transmission device in the host device, as taught by Dennis.

The motivation for doing so would have been to: a) the user only required one piece of equipment; and b) to eliminate the need of a independent storage device by incorporating the storage device and the second transmission device into the host device.

In accordance with claims 2, 9, 16, 20: Dennis further specifies that the host device contain a sorting device to sort printable data stored in the storage device in an order of printing, in Dennis's system, the resource assembler 208 (figure 1) determines the most efficient sequence for printing the stored document (col. 8 lines 54-58).

Dennis further discloses that the second transmission device transmits the sorted printable data to the printing device, in Dennis's system, the resource loader 214 controls the transmission of image data and resource information from the computer to the printer, in accordance with the order determined by the resource assembler 208 (col. 8 lines 63-67).

In accordance with claims 5, 12, 19: Nakamura discloses that the printing device performs color printing and the converting device converts image data into binary data

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corresponding to ink colors in the printing device, in Nakamura's system, the reading device 1 reads image data for each ink color (C, M, Y and K) (col. 5 lines 65 - col. 6 line 3) then that data is sent to the image outputting device 2, which outputs the color image in accordance with the data corresponding to each color (C, M, Y and K) (col. 6 lines 29-31).

Regarding claims 39-41: Nakamura teaches wherein the peripheral device further comprising a copy start device that starts copying, and when the copy start device starts copying, the reading by the reading device, the conversion by the converting device, the transmission by the first transmission device, the reception and the storing by the reception control device, the transmission by the second transmission device and the reception and the printing by the reception printing device are performed successively based on the start by the copy start device (the above limitations/function steps has been discussed in claim 1; since the system of Nakamura cannot continue to run without stopping, the starting device/step and stopping device/step is inherent in Nakamura.

10. Claims 3, 4, 10, 11, 17, 18, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura in view of Dennis in further view of Tabata (5,717,843).

In accordance with claims 3, 10, 17, 21: Nakamura discloses an input device, in the form of an operational keyboard, that allows the operator to input instructions (col. 6 lines 62-64). However, Nakamura does not disclose expressly that the device sort the printable data according to the operator's instructions.

Tabata specifies allowing the input of a specific sorting order (col. 19 lines 60-63).

Tabata is combinable with Nakamura and Dennis because they are from the same field of endeavor, namely image forming apparatuses.

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to allow the copying system to have a specifiable sorting order as disclosed by Tabata.

The motivation for doing so would have been to allow the user to receive copied documents in the order he or she prefers as in Tabata's system (col. 19 lines 60-63).

In accordance with claims 4, 11, 18: Tabata further specifies that the sorting device sort data in either a stack mode or a sort mode (col. 1 lines 53-55).

Tabata is combinable with Nakamura and Dennis because they are from the same field of endeavor, namely image forming apparatuses.

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to allow the copying system to sort the output in either a stack mode or a sort mode.

The motivation for doing so would have been to allow the user to receive copied documents in the order he or she prefers as in Tabata's system (col. 1 lines 53-55).

11. Claim 6, 13, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura in view of Dennis in further view of Vondran (5,717,607).

In accordance with claims 6, 13, 22, neither Nakamura nor Dennis specifies that the converting device contain an ASIC.

Vondran specifies that the converting device contain an ASIC (col. 11 lines 1-3).

Vondran is combinable with Nakamura and Dennis because they are from the same field of endeavor, namely image data conversion for printing.

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to use an ASIC to perform image conversion as disclosed in Vondran (col. 11 lines 1-3).

The motivation for doing so would have been to "maximize the speed of color space conversion" (Vondran: col. 15 lines 13-14).

12. Claims 7, 14, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura in view of Dennis in further view of Suzuki (5,381,246).

In accordance with claims 7, 14, 23: Nakamura discloses that the printing device (image outputting device 2) performs color printing using a plurality of inks; in Nakamura's system color printing is performed using CMYK inks (col. 6 lines 29-31). However, neither Nakamura nor Dennis specifies that the converting device converts image data into multi-value data corresponding to ink colors in the printing device.

Suzuki specifies that the converting device converts image data into multi-value data corresponding to ink colors in the printing device (col. 2 lines 27-31).

Suzuki is combinable with Nakamura and Dennis because they are from the same field of endeavor, namely image data processing.

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to allow the converting device to convert image data into multi-value data corresponding to ink colors in the printing device, as in Suzuki (col. 2 lines 27-31).

The motivation for doing so would have been to allow the apparatus to convert color images into corresponding color image data for printing.

Response to Arguments

13. Applicant's arguments filed on 6/15/2004 have been fully considered but they are not persuasive.

With respect to applicant's argument that Nakamura does not teach transmission device transmit to the host device from the peripheral device; has been considered.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Nakamura discloses a copying system with a host device, a peripheral device and a printing device, in Nakamura's system, the controlling unit 3 (figure 2) and memory unit 6, (fig. 13) act as a host device (it is well known in the art that a host

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computer having a controlling unit and a memory), and is connected to the image inputting unit 1, which is a peripheral device, and an image outputting unit 2, which is a printing device (col. 4 lines 29-32).

Nakamura further discloses that the peripheral device contains a first transmission device that transmits printer data to the host; in Nakamura's system, the controlling and communicating unit 10 (figure 1) sends image data to the transmission path 4, to which the image outputting unit 2 and the controlling unit 3 are also connected (figure 2 and col. 5 lines 1-4; also see column 14, lines 1-10); as well as to memory 6 controlled by controlling unit.

Although Nakamura teaches to transmit and retrieve image from the memory 6 through controlling unit 3, column 14, lines 1-30, and that it is well known in the art that a host have a control unit and a memory, Nakamura does not disclose expressly that the printable data is received from a host device; i.e., Nakamura does not disclose expressly that the storage device 6 is in the host device.

Dennis discloses that the peripheral device (printer 218 figure 1) contains a reception printing device to receive printable data from the host (computer 202) and to cause the printing device to print the data; in Dennis's system, data to be printed is generated by the application program 204, within the host, and transformed into printable bitmap data by the resource scheduler 216 and sent to the printer for printing (col. 8 lines 30-32 and col. 9 lines 8-26).

Dennis further discloses that the host device contains a device to store data, namely a hard drive (col. 10 lines 9-12).

Nakamura and Dennis are combinable because they are from the same field of endeavor, namely image forming systems with host and peripheral devices.

Therefore, it would have been obvious to a person of ordinary skill in the art to allowed the memory 6 and the control unit 3 to be implemented in a host computer and to include the second transmission device in the host device, as taught by Dennis.

The motivation for doing so would have been to: a) the user only required one piece of equipment; and b) to eliminate the need of a independent storage device by incorporating the storage device and the second transmission device into the host device.

With respect to applicant's argument that there are no motivation to combine Dennis and Nakamura, has been considered.

In reply: Dennis is a reference provided by the examiner to show that it is well known in the art that a controller controlling data transfer to and from a memory can be implement in different ways. It is clear from Dennis that a controller controlling data transfer to and from a memory can be implemented in a host computer that includes the controller and memory as a whole unit. The configuration of the controller and memory of Nakamura would be replaced by a host computer should be instant to a person with ordinary skill in the art. It would not have made sense for a ordinary person with ordinary skill in the art to go to electronic stores to buy a CPU, a memory, a circuit board, a system clock, to spend time to program the CPU to talk with the memory, to risk the chance that the system does not work and spending many days of debugging the home made system; while knowing that all the troubles would be solved by

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purchasing a new computer put together by EXPERTS in the art such as IBM, HP etc., with warranty and technical support from everywhere in the world.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is (703) 305-0892.

4/9/2004

A handwritten signature in cursive script, appearing to read 'King Y. Poon'.

**KING Y. POON
PRIMARY EXAMINER**